

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method to allocate bandwidth, which method is intended for a central controller of an ad-hoc network, comprising:

allocating a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, ~~said certain connection never using more than the allocated predetermined amount of bandwidth~~, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network or said central controller, and the predetermined amount of bandwidth is allocated based on a fixed capacity allocation;

freeing a certain amount of the allocated predetermined amount of bandwidth as freed bandwidth, said certain amount of freed bandwidth being a difference between the allocated predetermined amount of bandwidth and an indicated needed amount of bandwidth indicated by said owner, wherein said indicated needed amount of bandwidth does not exceed said predetermined amount of bandwidth; and

when said owner indicates a new needed amount of bandwidth greater than said indicated needed amount, immediately returning as much of the freed bandwidth as required so that said new needed amount of bandwidth is available to said owner.

2. (Previously Presented) The method according to claim 1, further comprising:
allocating some or all of said certain amount of freed bandwidth to a connection without quality or service requirements, the connection being a connection of the ad-hoc network.

3. (Previously Presented) The method according to claim 1,

wherein said requesting terminal is operated by reserving a predetermined amount of bandwidth for providing a certain quality of service for said connection, and said method further comprises:

determining a filling status of a transmit queue which indicates how much sending data is in the transmit queue,

determining a needed amount of bandwidth as bandwidth needed in a next transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding said predetermined amount of bandwidth, and

indicating said needed amount of bandwidth to said central controller.

4. (Currently Amended) A method to reserve bandwidth for a connection of an ad-hoc network, which method is intended for a requesting terminal or a central controller of said ad-hoc network, wherein the requesting terminal or the central controller comprises a transmit queue for buffering sending data, and the requesting terminal is a terminal of the ad-hoc network with said central controller, the method comprising:

reserving a predetermined amount of bandwidth for providing a certain quality of service for said connection, ~~said connection never using more than the allocated predetermined amount of bandwidth~~ said predetermined amount of bandwidth allocated based on a fixed capacity allocation;

determining a filling status of the transmit queue which indicates how much sending data is in the transmit queue;

determining a needed amount of bandwidth which is needed in a next transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding said predetermined amount of bandwidth; and

indicating said needed amount of bandwidth to said central controller.

5. (Previously Presented) The method according to claim 4, further comprising operating said central controller by allocating a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network or said central controller,

freeing a certain amount of the allocated predetermined amount of bandwidth as freed bandwidth, said certain amount of freed bandwidth being the difference of said predetermined amount of bandwidth and an indicated needed amount of bandwidth indicated by said owner, and

in case said owner requests a re-allocation of at least parts of the freed bandwidth, immediately re-allocating as much of the freed bandwidth as required so that said indicated needed amount of bandwidth is available to said owner.

6. (Previously Presented) The method according claim 1, wherein said ad-hoc network is an ad hoc network operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN/2) standard.

7. (Currently Amended) A central controller of an ad-hoc network, comprising:
a bandwidth allocation means for allocating a predetermined amount of bandwidth to a certain connection with a certain quality of service requirement, ~~said certain connection never using more than the allocated predetermined amount of bandwidth, said predetermined amount of bandwidth allocated based on a fixed capacity allocation, and~~ the central controller or a requesting terminal being an owner of said connection;

a bandwidth freeing means for receiving a request signal sent out by said owner indicating an indicated needed amount of bandwidth and when a certain amount of bandwidth neither exceeds the allocated predetermined amount of bandwidth nor said indicated needed amount of bandwidth, freeing the certain amount of bandwidth which is a difference between the allocated predetermined amount of bandwidth and said indicated needed amount of bandwidth; and

a bandwidth returning means for immediately returning as much of said certain amount of bandwidth as required so that said indicated needed amount of bandwidth according to said request signal is available to said owner when said certain amount of bandwidth neither exceeds the allocated predetermined amount of bandwidth nor said indicated needed amount of bandwidth.

8. (Previously Presented) The central controller according to claim 7, comprising
a transmit queue for buffering sending data, and
a monitoring means for monitoring a filling status of said transmit queue and indicating said indicated needed amount of bandwidth, which depends on the filling status of the transmit queue, to said bandwidth freeing means or to said bandwidth re-allocation means.

9. (Previously Presented) The central controller according to claim 7,
wherein
said ad-hoc network is operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN / 2) standard.

10. (Currently Amended) A requesting terminal of an ad-hoc network having a connection with other terminals of the ad-hoc network or with a central controller of the ad-hoc network, the connection requiring a certain quality of service and therefore a predetermined allocated amount of bandwidth, the requesting terminal comprising:

a transmit queue for buffering sending data;

a monitoring means for monitoring a filling status of said transmit queue and sending out a request signal to said central controller indicating a needed amount of bandwidth, which depends on the filling status of said transmit queue, the indicated needed amount of bandwidth not exceeding the predetermined allocated amount of bandwidth, wherein the predetermined amount of bandwidth is allocated based on a fixed capacity allocation.

11. (Previously Presented) The central controller according to claim 10, wherein said ad-hoc network is operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN /2) standard.

12. (Previously Presented) The method according to claim 4, said ad-hoc network is operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN / 2) standard.

13. (Previously Presented) The method according to claim 1 or 2, wherein said allocated predetermined amount of bandwidth corresponds to a fixed reserved amount of bandwidth.

14. (Canceled)

15. (Previously Presented) The method according to claim 1 or 2, wherein the freed bandwidth is re-allocated in a next transmission frame.